AMENDMENTS TO THE CLAIMS

Please amend claims 1, and 6 as follows:

1. (currently amended) A data transmission apparatus for transmitting a transmission request to transmit a data signal to a receiver unit and for, upon receiving a data transmission permission from the receiver unit, transmitting the data signal to the receiver unit, comprising:

a data transmission circuit outputting a received data signal to the receiver unit;

a control circuit controlling a maximum transmission amount of the data signal to be transmitted at a time; and

a transmission amount storing circuit storing therein an average transmission amount value,

said control circuit comprising:

a first management circuit adding up the average transmission amount value each time the data signal is transmitted and storing therein the added-up value as a first management value, the average transmission amount value being stored in said transmission amount storing circuit;

a second management circuit adding up a transmission amount of the data signal transmitted from said data transmission circuit each time the data signal is transmitted and storing therein the added-up amount value as a second management value; and

a maximum amount determination circuit determining, based on the first and

second management values, the maximum data amount of the data signal to be transmitted next from said data transmission circuit, and

wherein, with the maximum as a threshold, said data transmission circuit determines an amount of the data signal to be transmitted next and ~~transmitting~~ transmits the transmission request to transmit the amount of the data signal to the receiver unit.

2. (original) The apparatus in accordance with claim 1, wherein said maximum amount determination circuit calculates a relative difference between the first management value and the second management value and, based on the relative difference, varies the maximum data amount to be transmitted next.

3. (original) The apparatus in accordance with claim 1, wherein said first management circuit adds up the average transmission amount value each time the data is transmitted to maintain the first management value, said second management circuit adding up the transmission amount of the data signal to maintain the second management value.

4. (original) The apparatus in accordance with claim 3, further comprising a condition checking circuit checking a condition for an update of the first and second management values,

wherein said first and second management circuits update the first and second

management values, respectively, according to the condition generated by said condition checking circuit.

5. (original) The apparatus in accordance with claim 4, wherein said condition checking circuit resets the first and second management values to predetermined values, respectively, to maintain the relative difference between the first and second management values.

6. (currently amended) The apparatus in accordance with claim 5, wherein said first management circuit comprises a first register containing the first management value,

said second management circuit comprising a second register containing the second management value, and

wherein said first and second management circuits update the first and second management values, respectively, upon detection of a flag signal generated each time the data signal is transmitted beginning with a time said data transmission apparatus starts operation.

7. (original) A method of controlling data transmission for use in a data transmission apparatus for transmitting a transmission request to transmit a data signal to a receiver unit and for, upon receiving a data transmission permission from the receiver unit, transmitting the data signal to the receiver unit, said method comprising the steps

of:

outputting to the receiver unit a transmission request to transmit the data signal to the receiver unit;

generating a flag signal each time the data signal is transmitted;

updating first management information representing a sum of a data transmission amount each time the flag signal is detected;

updating second management information representing a result of data transmission each time the flag signal is detected; and

based on the first and second management information, calculating a maximum of the data signal to be transmitted next,

in said step of outputting a transmission request, an amount of the data signal to be transmitted next being determined with the maximum as a threshold, the transmission request requesting to transmit the amount of the data signal being output to the receiver unit.

8. (original) The method in accordance with claim 7, wherein in said step of calculating a maximum, the maximum is determined based on a relative difference between the first management information and the second management information.

9. (original) The method in accordance with claim 7, wherein in said step of updating first management information and said step of updating second management

information, a first management value and a second management value are updated respectively based on a first setting value regulating a data transmission amount per transmission and on a second setting value regulating a maximum transmittable amount, and

in said step of calculating a maximum, a relative difference between the first management value and the second management value is calculated, and the transmission request is output according to the relative difference.